

PART 70 SIGNIFICANT SOURCE MODIFICATION OFFICE OF AIR MANAGEMENT

**Golden Casting Corp.
1616 Tenth St.
Columbus, IN 47201**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Significant Source Modification No.: SSM005-11795-00006	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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SECTION A

SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary gray iron foundry manufacturing metal castings.

Responsible Official:	Mr. Thomas Smith
Source Address:	1616 Tenth St., Columbus, IN 47201
Mailing Address:	1616 Tenth St., Columbus, IN 47201
Phone Number:	812-372-3701
SIC Code:	3321
County Location:	Bartholomew
County Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program
	Major Source, under PSD Rules;
	Major Source, Section 112 of the Clean Air Act
	1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source is approved to construct and operate the following emission units and pollution control devices:

- (a) One (1) shot blast unit, identified as 450, with a maximum capacity of 30 tons per hour of castings, not to exceed 444 tons per day of castings, using a baghouse (ID BH10) as particulate control, and exhausting to stack SC-22. This shot blast unit, identified as 450, shall replace the existing shot blast unit No. 445, with a maximum capacity of 11 tons per hour of castings, which utilizes baghouses BH5 and BH10 as particulate matter control. This shot blast unit, identified as 450, shall also replace the South Pangborn Blast.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Permit No Defense [IC 13]

This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions [326 IAC 2-7-1]

Terms in this approval shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2 and 326 IAC 2-7 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-2-8]

Pursuant to 326 IAC 2-2-8(a)(1), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of eighteen (18) months or more.

B.5 Significant Source Modification [326 IAC 2-7-10.5(h)]

This document shall also become the approval to operate pursuant to 326 IAC 2-7-10.5(h) when, prior to start of operation, the following requirements are met:

- (a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the emission units were constructed as proposed in the application. The emissions units covered in the Significant Source Modification approval may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM if constructed as proposed.
- (b) If actual construction of the emissions units differs from the construction proposed in the application, the source may not begin operation until the source modification has been revised pursuant to 326 IAC 2-7-11 or 326 IAC 2-7-12 and an Operation Permit Validation Letter is issued.
- (c) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.
- (d) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.

However, in the event that the Title V application is being processed at the same time as this application, the following additional procedures shall be followed for obtaining the right to operate:

- (1) If the Title V draft permit has not gone on public notice, then the change/addition covered by the Significant Source Modification will be included in the Title V draft.
- (2) If the Title V permit has gone thru final EPA proposal and would be issued ahead of the Significant Source Modification, the Significant Source Modification will go thru a concurrent 45 day EPA review. Then the Significant Source Modification will be incorporated into the final Title V permit at the time of issuance.

- (3) If the Title V permit has not gone thru final EPA review and would be issued after the Significant Source Modification is issued, then the Modification would be added to the proposed Title V permit, and the Title V permit will issued after EPA review.

SECTION C GENERAL OPERATION CONDITIONS

C.1 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]

- (a) Where specifically designated by this approval or required by an applicable requirement, any application form, report, or compliance certification submitted under this approval shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, on the attached Certification Form, with each submittal.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this approval, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this approval, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM. IDEM, OAM, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this approval.
- (b) Any application requesting an amendment or modification of this approval shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

C.4 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this approval:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

C.5 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided in this approval, all air pollution control equipment listed in this approval and used to comply with an applicable requirement shall be operated at all times that the emission unit vented to the control equipment is in operation.

C.6 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAM, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have

been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Management,
Compliance Section), or
Telephone Number: 317-233-5674 (ask for Compliance Section)
Facsimile Number: 317-233-5967

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted notice, either in writing or facsimile, of the emergency to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
 - (e) IDEM, OAM, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.
 - (f) Failure to notify IDEM, OAM, by telephone or facsimile of an emergency lasting more than one (1) hour in compliance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
 - (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the

Permittee may not continue to operate the affected emissions facilities unless:

- (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
- (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

Testing Requirements [326 IAC 2-7-6(1)]

C.7 Performance Testing [326 IAC 3-6][326 IAC 2-1.1-11]

- (a) Compliance testing on new emission units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this approval, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this approval, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAM, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.8 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.9 Pressure Gauge Specifications

Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected

normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent ($\pm 2\%$) of full scale reading.

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

**C.10 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]
[326 IAC 1-6]**

- (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
 - (1) This condition;
 - (2) The Compliance Determination Requirements in Section D of this approval;
 - (3) The Compliance Monitoring Requirements in Section D of this approval;
 - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this approval; and
 - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this approval. CRP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this approval by the Permittee and maintained on site, and is comprised of :
 - (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this approval; and
 - (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this approval, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the approval unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.
- (c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the approval conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the approval, and such request has not been denied or;
 - (3) An automatic measurement was taken when the process was not operating; or

- (4) The process has already returned to operating within “normal” parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

**C.11 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5]
[326 IAC 2-7-6]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this approval exceed the level specified in any condition of this approval, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate approval conditions may be grounds for immediate revocation of the approval to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.12 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]

- (a) With the exception of performance tests conducted in accordance with Section C- Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this approval shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this approval is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this approval.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is

documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.13 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this approval;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this approval, and whether a deviation from an approval condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of approval issuance.

C.14 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

- (a) The reports required by conditions in Section D of this approval shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) Unless otherwise specified in this approval, any notice, report, or other submission required by this approval shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (c) Unless otherwise specified in this approval, any semi-annual report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) The first report shall cover the period commencing on the date of issuance of this approval and ending on the last day of the reporting period.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

- (a) One (1) shot blast unit, identified as 450, with a maximum capacity of 30 tons per hour of castings, not to exceed 444 tons per day of castings, using a baghouse (ID BH10) as particulate control, and exhausting to stack SC-22. This shot blast unit, identified as 450, shall replace the existing shot blast unit No. 445, with a maximum capacity of 11 tons per hour of castings, which utilizes baghouses BH5 and BH10 as particulate matter control. This shot blast unit, identified as 450, shall also replace the South Pangborn Blast.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the one (1) shot blast unit, identified as 450, shall not exceed 40.04 pounds per hour when operating at a process weight rate of 60,000 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

D.1.2 PSD Minor Limit [326 IAC 2-2] [40 CFR 52.21]

Emissions of PM and PM10 from the one (1) shot blast unit, identified as 450, shall not exceed 5.48 pounds per hour and 3.19 pounds per hour, respectively. Only the baghouse (ID BH10) is required to be in operation to control PM and PM10 emissions from the shot blast unit, identified as 450, at all times that the shot blast unit, is in operation to comply with this limit. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

D.1.3 Operation Limitations

- (a) When the shot blast unit identified as 450 is fully operational, the two (2) existing shot blast units identified as 445 and the south pangborn blast shall be removed from service. Prior to becoming fully operational, the shot blast unit identified as 450 shall not be operated if the two (2) existing shot blast units identified as 445 and the south pangborn blast are in operation.
- (b) The shot blast unit identified as 450 shall limit total daily casting throughput to 444 tons per day (equivalent to 162,060 tons per year).

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

Within 180 days after issuance of this permit, the Permittee shall perform PM and PM-10 testing on the baghouse used to control the Plant 1 Blast using methods 5 or 17 (40 CFR 60, Appendix

A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10 or other methods as approved by the Commissioner, in order to demonstrate compliance with Condition D.1.2. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM-10 includes filterable and condensible PM-10. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

D.1.6 Particulate Matter (PM)

The baghouse for PM control shall be in operation and control emissions from the shot blast unit, identified as emission unit 450, at all times that the shot blast unit, identified as emission unit 450, is in operation.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.7 Visible Emissions Notations

- (a) Once per working shift, visible emission notations of the shot blast unit, identified as emission unit 450, stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

D.1.8 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the shot blast unit, identified as emission unit 450, at least once per working shift when the shot blast unit, identified as emission unit 450, is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 3.0 and 8.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAM, and shall be calibrated at least once every six (6) months.

D.1.9 Baghouse Inspections

An inspection shall be performed each calendar quarter of all bags controlling the shotblasting operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.

D.1.10 Broken or Failed Bag Detection

In the event that bag failure has been observed:

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section C - Emergency Provisions).
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section C - Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.11 Record Keeping Requirements

- (a) To document compliance with Condition D.1.7, the Permittee shall maintain records of daily visible emission notations of the shot blast unit, identified as emission unit 450, stack exhaust.
- (b) To document compliance with Condition D.1.8, the Permittee shall maintain the following:
 - (1) Daily records of the following operational parameters during normal operation when venting to the atmosphere:
 - (A) Inlet and outlet differential static pressure; and
 - (B) Cleaning cycle: frequency and differential pressure
 - (2) Documentation of all response steps implemented, per event .
 - (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
 - (4) Quality Assurance/Quality Control (QA/QC) procedures.
 - (5) Operator standard operating procedures (SOP).
 - (6) Manufacturer's specifications or its equivalent.
 - (7) Equipment "troubleshooting" contingency plan.
 - (8) Documentation of the dates vents are redirected.
- (b) To document compliance with Condition D.1.9, the Permittee shall maintain records of the results of the inspections required under Condition D.1.9 and the dates the vents are

redirected.

- (c) To document compliance with Condition D.1.4, the Permittee shall maintain records of maximum daily casting throughput for each day for the shot blast unit identified at 450. Records maintained shall be taken daily and shall be complete and sufficient to establish compliance with the casting throughput limit established in Condition D.1.4.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.12 Reporting Requirements

A quarterly summary of the information to document casting throughput for the shot blast unit identified at 450. This shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

**PART 70 OPERATING PERMIT
EMERGENCY/DEVIATION OCCURRENCE REPORT**

Source Name: Golden Casting Corp.
Source Address: 1616 Tenth St., Columbus, IN 47201
Mailing Address: 1616 Tenth St., Columbus, IN 47201
Source Modification No.: SSM 005-11795-00006

This form consists of 2 pages

Page 1 of 2

Check either No. 1 or No.2	
9	1. This is an emergency as defined in 326 IAC 2-7-1(12) <input type="checkbox"/> The Permittee must notify the Office of Air Management (OAM), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and <input type="checkbox"/> The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16
9	2. This is a deviation, reportable per 326 IAC 2-7-5(3)(C) <input type="checkbox"/> The Permittee must submit notice in writing within ten (10) calendar days

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency/Deviation:
Describe the cause of the Emergency/Deviation:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency/Deviation started:
Date/Time Emergency/Deviation was corrected:
Was the facility being properly operated at the time of the emergency/deviation? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency/deviation:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

**PART 70 SOURCE MODIFICATION
CERTIFICATION**

Source Name: Golden Casting Corp.
Source Address: 1616 Tenth St., Columbus, IN 47201
Mailing Address: 1616 Tenth St., Columbus, IN 47201
Source Modification No.: SSM 005-11795-00006

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.

Please check what document is being certified:

- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

Source Modification Quarterly Report

Source Name: Golden Casting Corp.
Source Address: 1616 Tenth St., Columbus, IN 47201
Mailing Address: 1616 Tenth St., Columbus, IN 47201
Source Modification No.: SSM 005-11795-00006
Facility: Shot Blast Unit identified as 450
Parameter: Casting Throughput
Limit: The shot blast unit identified as 450 shall limit total daily casting throughput to 444 tons per day (equivalent to 162,060 tons per year).

YEAR: _____

Month	Casting Throughput (tons/yr)	Casting Throughput (tons/yr)	Casting Throughput (tons/yr)
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Mail to: Permit Administration & Development Section
Office Of Air Management
100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

Golden Casting Corp.
1616 Tenth St.
Columbus, IN 47201

Affidavit of Construction

I, _____, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in _____ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of _____ for _____.
(Title) (Company Name)
3. By virtue of my position with _____, I have personal
(Company Name)
knowledge of the representations contained in this affidavit and am authorized to make
these representations on behalf of _____.
(Company Name)
4. I hereby certify that Golden Casting Corp., 1616 Tenth St., Columbus, IN 47201, has constructed the Plant 1 Blast, identified as 450, with a maximum capacity of 30 tons of metal per hour with emissions controlled by one (1) baghouse, BH-10 and exhausting through stacks SC-22, in conformity with the requirements and intent of the construction permit application received by the Office of Air Management on January 24, 2000 and as permitted pursuant to **Source Modification No.: SSM 005-11795-00006, Plant ID No.005-00006** issued on _____

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature

Date

STATE OF INDIANA)
)SS

COUNTY OF _____)

Subscribed and sworn to me, a notary public in and for _____ County and State of
Indiana on this _____ day of _____, 20 _____.
My Commission expires: _____

Signature

Name (typed or printed)

Indiana Department of Environmental Management Office of Air Management

Addendum to the Technical Support Document for a Significant Source Modification to a Part 70 Operating Permit

Source Name:	Golden Casting Corp.
Source Location:	1616 Tenth St., Columbus, IN 47201
County:	Bartholomew
Construction Permit No.:	SSM 005-11795-00006
SIC Code:	3321
Permit Reviewer:	Phillip Ritz/EVP

On April 4, 2000, the Office of Air Management (OAM) had a notice published in The Republic, Columbus, IN, stating that Golden Casting Corp. had applied for a Part 70 Significant Source Modification to construct and operate emission units and pollution control devices related to the replacement of the existing shot blast unit No. 445, utilizing baghouses BH5 and BH10 as particulate control, with a new blast unit No. 450, utilizing baghouse BH10 as particulate control. The notice also stated that OAM proposed to issue a Part 70 Significant Source Modification for this installation and provided information on how the public could review the proposed Part 70 Significant Source Modification and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On April 24, 2000, Charles Staehler and Geoffrey Glanders of August Mack Environmental, Inc., submitted comments on behalf of Arvin Industries, Inc. (Arvin Industries) on the proposed Part 70 Significant Source Modification. The summary of the comments and corresponding responses is as follows:

Comment 1

Based upon the draft significant source modification, it is our understanding that Golden Casting plans to operate a new shot blast unit, identified as #450, which has a maximum capacity of 30 tons per hour of steel shot and will be controlled by a baghouse identified as BH10. It is also our understanding that unit #450 will replace an existing shot blast unit identified as #445 with a maximum capacity of 11 tons per hour of steel shot and controlled by baghouses BH5 and BH10.

Arvin Industries does not believe that Golden Casting should be authorized by the IDEM to increase the quantity of air pollutants that the source currently emits into the atmosphere from its source by allowing Golden Casting to operate the new shot blast unit. Golden Casting has had a history of violating air emission regulations and should spend the money used to install and operate the new shot blast unit on cleaning up its current air emission problems. The current air emissions from point and fugitive emission units at the Golden Casting source are being deposited on the rooftops, lawns and cars of the businesses and residents of Columbus, Indiana causing damage to the property and possibly adverse human health effects. Golden Casting has been notified on numerous occasions that air emissions from their source have been deposited on their neighbors' property. Golden Casting has not taken the corrective actions necessary to satisfactorily correct the problem.

Arvin Industries has documented three years of Fugitive Dust and other violations by Golden Casting. During the period from August to October 1999, Arvin Industries collected numerous ambient air samples from the rooftops of our buildings which are located northeast and north of the Golden Casting source and analyzed the samples for total suspended particulate (TSP) and particulate less than ten (10) microns in aerodynamic diameter (PM10). Fifteen (15) samples taken during the rooftop ambient air TSP sampling event contained fugitive dust concentrations in excess of the historical United States

Environmental Protection Agency (US EPA) Primary National Ambient Air Quality Standards (NAAQS) of 260 ug/m^3 , and twenty (20) of the TSP samples exceeded the historical US EPA Secondary NAAQS (150 ug/m^3). Each of these samples was collected from ambient air downwind of Golden Casting.

Twelve (12) samples collected during the rooftop ambient air PM₁₀ sampling event contained concentrations that exceeded the US EPA Primary and Secondary NAAQS for particulate matter (150 ug/m^3) as established in the Clean Air Act (CAA). Each of these samples was collected from ambient air downwind of Golden Casting.

A total of thirty-five (35) violations of 326 IAC 6-4 (Fugitive Dust Rule) occurred on at least twenty (20) separate days of the rooftop ambient air TSP and PM₁₀ sampling event. Twenty-nine (29) of the violations were recorded at Arvin Industries' NAA Building, one (1) occurred at Arvin Industries' Corporate Office, and five (5) of the violations were recorded at an off-site location adjacent to the Golden Casting property. Each of these violations was recorded in particulate samples collected from ambient air downwind of Golden Casting.

A total of seventeen (17) additional violations of the Fugitive Dust Rule occurred on at least four (4) days of ground level TSP sampling. Each of these violations was recorded in 60-minute TSP samples collected from ambient air downwind of Golden Casting.

Certified opacity readers observed and recorded visible volumes of fugitive dust crossing Golden Casting's property line and settling onto Arvin Industries' property on fifteen (15) separate occasions. The fugitive dust was observed and recorded as originating from various sources located within Golden Casting's property. These observations constitute fifteen (15) additional violations of the Fugitive Dust Rule. Areas of visible, deposited particulate matter were also observed on the roof of Arvin Industries' NAA Building and in the corporate parking lot.

The meteorological data collected during this investigation indicated that variable wind directions were present on the days of recorded violations. However, all meteorological data were evaluated and all violations were determined to have been collected at locations downwind of Golden Casting. Arvin Industries would be willing to provide the IDEM with a copy of the report discussing the results of the air sampling conducted at our property. It should be noted that Arvin Industries has met with the IDEM Commissioner and the IDEM has agreed to conduct an investigation of the Golden Casting source. The employees of Arvin Industries and the citizens of Columbus, Indiana should not be subjected to Golden Casting's total disregard for the environmental regulations established by the US EPA and the IDEM.

Response 1

Thank you for your interest in the permitting process for the Golden Casting Corp. modification.

The proposed shot blast unit meets all the applicable state and federal rules. These rules were established by State and EPA under several programs of the Clean Air Act and the Indiana Administrative Code. IDEM is charged with ensuring the public (i.e., the community as a whole) health will be protected.

The proposed modification to the existing source is for the addition of one (1) shot blast unit, identified as 450 to replace the existing shot blast unit No. 445 and the South Pangborn Blast. No other operations at the source will increase their throughput as a result of this modification, and no de-bottlenecking will occur. All emissions from the shot blast unit must comply with the conditions of the proposed Significant Source Modification to a Part 70 Operating Permit.

Particulate matter is regulated by the National Ambient Air Quality Standards (NAAQS). PM₁₀ is defined as particulate matter with size diameters less than or equal to 10 microns (PM₁₀). Bartholomew County is in attainment with the PM₁₀ as well as the ozone, nitrogen oxides and sulfur dioxide NAAQS, which are health-based standards. A margin of safety is incorporated into the NAAQS levels.

Golden Casting Corp. must comply with all of the Significant Source Modification conditions, and specifically, Conditions C.4, D.1.1, D.1.2 and D.1.4 through D.1.9 (now D.1.5 through D.1.10) which

address your concerns on the control of fugitive and nonfugitive particulate matter and its transport. These conditions set limits on plume opacity, the amount of particulate matter emitted per hour, require that a record of all malfunctions of air pollution control equipment be made, mandate that the particulate matter pollution control devices (baghouse) must be operated at all times, require that observations of the visible exhausts from the baghouse be made at least once per shift; records be made of the total static pressure drop across the baghouse used in conjunction with the shot blast unit at least once daily; inspections performed during each calendar quarter of all bags controlling the shotblasting operation when venting to the atmosphere; and in the event that bag failure has been observed the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency. IDEM believes that the conditions in the Significant Source Modification to a Part 70 Operating Permit are adequate to protect the public health and therefore does not need to address the issue of its authority to deny a permit based on inadequate protection of public health.

The facility covered by this Significant Source Modification to a Part 70 Operating Permit cannot be constructed or operated until the issuance of this permit. Be assured that OAM will enforce these conditions by conducting inspections. Should any concerns be raised from the operation of this source, please feel free to contact the OAM inspector for Bartholomew County.

As of April 4, 2000, the source has voluntarily provided IDEM with a fugitive dust plan that is enforceable and practical and is designed to reduce any fugitive dust. The plan has been submitted and the source is currently obligated to comply with it. This Significant Source Modification is limited to the proposed construction of the shot blaster. Concerns regarding other facilities will be considered when IDEM prepares the Title V permit for the entire source. The source must comply with the requirements of the significant source modification upon issuance of the modification.

Comment 2

In Section A.2 and D.1 of the permit, the maximum capacity of the shot blast unit should be given in tons of metal charged since the emission factor used to calculate emissions from the shot blast unit is based upon the quantity of metal charged to the unit.

Response 2

The emission unit description in Sections A.2 and D.1 has been revised to clarify that the maximum capacity refers to the castings throughput, and also to state that the South Pangborn Blast, in addition to the shot blast unit identified as No. 445, will be replaced by the new shot blast unit, identified as 450. No other operations at the source will increase their throughput as a result of this modification, and no de-bottlenecking will occur. The changes to the permit are as follows (additions indicated in **boldface**, deletions indicated by ~~strikeout~~ for emphasis):

- (a) One (1) shot blast unit, identified as 450, with a maximum capacity of 30 tons per hour of ~~steel shot~~ **castings, not to exceed 444 tons per day of castings**, using a baghouse (ID BH10) as particulate control, and exhausting to stack SC-22. This shot blast unit, identified as 450, shall replace the existing shot blast unit No. 445, with a maximum capacity of 11 tons per hour of ~~steel shot~~ **castings**, which utilizes baghouses BH5 and BH10 as particulate matter control. **This shot blast unit, identified as 450, shall also replace the South Pangborn Blast.**

Condition D.1.3 has been added to the permit to require operation limitations on the amount of castings that the new shot blast unit identified as 450 can process, and to also ensure that the new shot blast unit will not be operated if the two (2) existing shot blast units identified as 445 and south Pangborn blast are in operation. The remaining conditions have been renumbered, and the new condition reads as follows:

D.1.3 Operation Limitations

- (a) **When the shot blast unit identified as 450 is fully operational, the two (2) existing shot blast units identified as 445 and the south Pangborn blast shall be removed**

- from service. Prior to becoming fully operational, the shot blast unit identified as 450 shall not be operated if the two (2) existing shot blast units identified as 445 and the south Pangborn blast are in operation.**
- (b) The shot blast unit identified as 450 shall limit total daily casting throughput to 444 tons per day (equivalent to 162,060 tons per year).**

Condition D.1.10 (now D.1.11) has been revised to require record keeping of the amount of castings processed by the new shot blast unit, identified as 450.

- (c) To document compliance with Condition D.1.3, the Permittee shall maintain records of maximum daily casting throughput for each day for the shot blast unit identified at 450. Records maintained shall be taken daily and shall be complete and sufficient to establish compliance with the casting throughput limit established in Condition D.1.3.**

Condition D.1.12 has been added to the permit to require reporting of the maximum amount of casting processed by the shot blast unit, identified as 450. The new condition reads as follows:

D.1.12 Reporting Requirements

A quarterly summary of the information to document casting throughput for the shot blast unit identified at 450. This shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

A Source Modification Quarterly Report has been added to the end of the permit to require reporting of the amount of castings processed by the one shot blast unit identified as 450.

Comment 3

In Section D.1.2 of the permit, based upon the information provided in the draft permit and technical support document (TSD), the applicability of PSD cannot be ruled out. Since Golden Casting is classified as a major source for PSD, actual emissions from the shot blast unit being removed must be compared to the potential emissions of the new shot blast unit. In addition, the air emissions increases created at other emission units at the source resulting from the increase in shot blasting capacity must be included in determining if the emissions increase due to this modification result in a significant modification as defined in the PSD regulations. Until an analysis of all contemporaneous increases associated with this modification is performed PSD applicability cannot be ruled out.

Response 3

No other operations at the source will increase their throughput as a result of this modification, and no de-bottlenecking will occur. Since this source is located in an attainment area for PM and PM10 and the increase from the new shot blasting unit is not greater than the significance level, there is no need to do the past actual emissions minus the potential to emit for the new unit and not necessary to do the contemporaneous increases and decreases.

The table below summarizes the total potential to emit, reflecting all limits, of the shot blast unit, identified as 450.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Shot Blast 450	11.17	1.12	0.00	0.00	0.00	0.00	0.00
Total Emissions	25	15	40	40	100	40	N/A

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

Comment 4

In Section D.1.4 (now D.1.5) of the permit, based upon Golden Casting's previous violations of air emission rules, the fact that Golden Casting is using a refurbished dust collector to control emissions from the new shot blast unit, the quantity of particulate emissions which could be released if the collector fails (i.e., 2,233.8 tons per year), and the fact that Golden Casting is relying on the collector to avoid PSD applicability, Golden Casting should be required to perform testing on the shot blast unit more frequently than every five years. The testing should be done at least annually to ensure compliance with the applicable regulations and protect the health of the employees of Arvin Industries and the citizens of Columbus.

In addition to testing for PM, Golden Casting should also be required to perform PM10 testing on the emissions from the shot blast unit. Testing for PM10 on a regular basis will help to ensure that PSD regulations are not violated and that Arvin Industries employees and the citizens of Columbus are not breathing unsafe levels of respirable PM10 dust.

Response 4

Testing the emissions from a stack is the preferred method for establishing the emission rate at any point in time and for calibrating other monitoring methods. This method has the advantage of being flexible and relatively accurate. The cost of continuous stack testing is considered prohibitive.

The requirement to test every five (5) years is a standard requirement in all Title V Significant Source Modifications. This time period is equivalent to one permit cycle since the Title V permit (upon issuance) is valid for a period of five (5) years. Testing requirements are re-evaluated at each permit renewal.

Based on IDEM/OAM's stack testing guidance, stack testing is required on the one (1) shot blast unit, identified as 450, because this unit must use a control device to comply with the PM emission limits pursuant to 326 IAC 6-3-2 and to avoid the requirements of 326 IAC 2-2 (PSD). The source also needs the control device to comply with the PM-10 emission limits, therefore, the following language has been added to Condition D.1.4 (now D.1.5) to require PM10 testing in addition to PM testing. The changes to the permit are as follows:

D.1.45 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

Within 180 days after issuance of this permit, the Permittee shall perform PM **and PM-10** testing on the baghouses used to control the Plant 1 Blast using methods **5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM-10 or other methods** as approved by the Commissioner, in order to demonstrate compliance with Condition D.1.2. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. **PM-10 includes filterable and condensible PM-10.** In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

Comment 5

In Section D.1.6 (now D.1.7) of the permit, based upon Golden Casting's previous history of violating air emission rules, daily visible emission monitoring is totally inadequate. If the dust collector fails, in between monitoring events, Golden Casting could emit in excess of 6 tons of particulate emissions. Golden Casting should be required to install and operate a continuous opacity monitor in the exhaust stack of the shot blast unit in order to ensure compliance with the applicable regulations and protect the health of the employees of Arvin Industries and the citizens of Columbus. The monitoring results should be recorded and subject to public review.

Response 5

Compliance Monitoring Condition D.1.6 (now D.1.7) in the Significant Source Modification requires Golden Casting to monitor visible emissions from the shot blast unit. This condition also states that the required Compliance Response Plan, which must be prepared within ninety (90) days after the permit is issued and maintained on site, shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Should an abnormal visible emission be observed, as defined in the condition, the source must comply with all corrective actions and response steps required by the condition and the permit. Upon further consideration, IDEM, OAM has revised Condition D.1.6 (now D.1.7) to require visible emission notations once per working shift to match current IDEM guidance for compliance monitoring. The changes to the permit are as follows:

- (a) **Daily Once per working shift**, visible emission notations of the shot blast unit, identified as emission unit 450, stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

Comment 6

In Section D.1.7(now D.1.8) of the permit, based upon Golden Casting's previous history of violating air emission rules, weekly static pressure drop readings are once again totally inadequate. If the dust collector fails in between monitoring events, Golden Casting could emit in excess of 42 tons of particulate emissions. Golden Casting should be required to monitor on a continuous basis the differential pressure between the clean and dirty air plenums of the collector in order to ensure compliance with the applicable regulations and protect the health of the employees of Arvin Industries and the citizens of Columbus. The monitoring results should be recorded and subject to public review.

In addition, Golden Casting should be required to perform PM and PM10 stack testing to prove that at the bottom and top of their pressure drop range (i.e., 4 to 7 inches of water) the refurbished collector can achieve the 5.48 pounds per hour PM and 3.19 pounds per hour PM10 permit limits.

Response 6

Compliance Monitoring Condition D.1.7 (now D.1.8) in the Significant Source Modification requires Golden Casting to monitor the pressure drop across the baghouse. If there is a blockage in the baghouse, the pressure drop will be outside the specified range for normal operation, and this will indicate that there is a problem. This condition also states that the required Compliance Response Plan, which must be prepared within ninety (90) days after the permit is issued and maintained on site, shall contain troubleshooting, contingency and response steps for when the pressure reading is outside of the proper range for any one reading. Additionally, Condition D.1.9 (now D.1.10), Broken Bag or Failure Detection, lists steps that must be taken in the event that bag failure is observed. Should a pressure reading occur outside of the normal operating range, or a baghouse malfunction occur, the source must comply with all corrective actions, response steps, and notification requirements of these conditions and the permit.

There are no state or federal requirements requiring the use of a continuous opacity monitor for this emission unit.

Pressure drop and baghouse operating parameters are required to be recorded pursuant to Condition D.1.10 (now D.1.11), and records are to be kept in accordance with Condition C.12 of the permit. Records requested by IDEM must be supplied by the source within that stated time frame. Non-confidential records placed by IDEM into the OAM's source file can be requested for review by the public.

Upon further consideration, IDEM, OAM has revised Condition D.1.7 (now D.1.8) to require monitoring of the pressure drop across the baghouse once per working shift to match current IDEM guidance for

compliance monitoring. The pressure drop range has also been corrected to a range of 3.0 and 8.0 inches of water. The changes to Condition D.1.7 (now D.1.8) are as follows:

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the shot blast unit, identified as emission unit 450, at least once ~~weekly~~ **per working shift** when the shot blast unit, identified as emission unit 450, is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of ~~4.0 3.0 and 7.0 8.0~~ inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above-mentioned range for any one reading.

Comment 7

In Section D.1.8 (now D.1.9) of the permit, based upon Golden Casting's previous history of violating air emission rules, quarterly collector bag/ cartridge inspections are inadequate. Monthly inspections of the bags/ cartridges should be performed along with a visualite test utilizing fluorescent powder and a black light to determine if particulate is passing from the dirty to the clean air plenum. The results of the inspections should be recorded and subject to public review.

Response 7

Quarterly inspections of baghouses have been determined by IDEM, OAM, to be sufficient to detect defective bags. There have been no changes to the permit as a result of this comment.

Comment 8

In Section D.1.10 (now D.1.11) of the permit, records of all required compliance monitoring and corrective actions should be subject to public review.

Response 8

See the response to Comment 6.

On April 28, 2000, Jeffery L. Casey of Golden Casting Corp. submitted comments on the proposed Part 70 Significant Source Modification. The summary of the comments and corresponding responses is as follows:

Comment 9

We are concerned with the inclusion of certain provisions implementing portions of the Title V operating permit program in advance of the issuance of a comprehensive Title V permit. In general, the permit for the replacement of a shot blast unit is presented as a Part 70 permit modification, although the Part 70 permit has not yet been issued. This may subject Golden Casting to Part 70 obligations in advance of the issuance of a Part 70 permit. In some cases the proposed permit conditions appear to refer to other sections of a Part 70 permit, but those sections are not included in the proposed permit. This makes the proposed permit somewhat confusing and difficult to comply with. Golden Casting requests that the permit for the No. 450 shot blast unit be issued pursuant to 326 IAC 2-2, and that the unit simply be included in the Title V permit, as appropriate, when it is issued. The following specific comments identify some of the specific sections where this occurs as well as other comments of concern.

Response 9

326 IAC 2-7-10.5 (a) Part 70 permits; source modifications, states that: An owner or operator of a Part 70 source proposing to construct new emission units, modify existing emission units, or otherwise modify the source as described in this section shall submit a request for a modification approval in accordance with this section (326 IAC 2-7-10.5). The modification approval shall be incorporated into the Part 70 permit application and will be included in the Part 70 permit when issued.

To clarify proposed permit conditions that may erroneously refer to sections of a Part 70 permit, Language regarding 326 IAC 2-7-16 "emergency provisions" has been added to the permit, as this emergency provision supersedes 326 IAC 1-6 for sources subject to this rule after the effective date of this rule. This provision is in addition to any emergency or upset provision contained in any applicable requirement. The new condition reads as follows, and the remaining conditions have been renumbered:

C.6 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAM, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Management, Compliance Section), or

Telephone Number: 317-233-5674 (ask for Compliance Section)

Facsimile Number: 317-233-5967

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted notice, either in writing or facsimile, of the emergency to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) IDEM, OAM, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.

(f) Failure to notify IDEM, OAM, by telephone or facsimile of an emergency lasting more than one (1) hour in compliance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(g) Operations may continue during an emergency only if the following conditions are met:

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

Condition D.1.10, Broken or Failed Bag Detection, has also been modified to change the Section citation from Section B “General Construction Conditions” to Section C “General Operation Conditions.” The

changes to the permit are as follows:

In the event that bag failure has been observed:

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B C - Emergency Provisions).
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B C - Emergency Provisions).

Comment 10

In Section A.2(a) and Section D.1 of the permit, the maximum capacity of the unit is described as "30 tons/hour of steel shot" The correct description is "30 tons/hour of castings" We would also note that the proposed shot blast unit will not only replace existing shot blast unit No.445, but also replaces the South Pangborn Blast.

Response 10

See the response to Comment 2.

Comment 11

In Section B.3 of the permit (Effective Date of the Permit), this condition indicates that the effective date of the permit is 33 days after issuance, and references 40 CFR 124 as the basis for this date. 40 CFR 124 establishes procedural requirements for EPA when issuing certain RCRA, UIC, NPDES and PSD permits. Since EPA is not the issuing agency, and since this is not a RCRA, UIC, NPDES or PSD permit, this condition should be deleted from the permit.

Response 11

Condition B.3 has been revised to correct the rule citation for this condition and date that this approval becomes effective. The changes to the permit are as follows:

B.3 Effective Date of the Permit ~~[40CFR 124]~~**[IC13-15-5-3]**

~~Pursuant to 40 CFR 124.15, 40 CFR 124.19, and 40 CFR 124.20, the effective date of this permit will be thirty-three (33) days after issuance.~~**Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.**

Comment 12

In Condition C.10 of the permit, (Compliance Monitoring Plan- Failure to Take Response Steps), we do not believe that 40 CFR Part 70, or 326 IAC 2-7 provides any authority to require the preparation of a Compliance Response Plan (CRP) or to establish as the basis for a violation of the permit for the failure to conduct the identified response steps. Failure to take specific response steps should not be interpreted in any way as evidence of non-compliance with an underlying applicable requirement, which

is implied by this permit condition. We would request that all references to a Compliance Response Plan be eliminated from this condition and other portions of the permit.

Response 12

The U.S. EPA's CAM rule supplements the existing federal requirements of 40 CFR 70 and corresponding Indiana authority under 326 IAC 2-7. An overview of the established compliance monitoring approach follows.

IDEM has worked with members of the Clean Air Act Advisory Council's Permit Committee, Indiana Manufacturing Association, Indiana Chamber of Commerce and individual applicants regarding the Preventive Maintenance Plan, the Compliance Monitoring Plan and the Compliance Response Plan. IDEM has clarified the preventive maintenance requirements by working with sources on draft language over the past two years. The plans are fully supported by rules promulgated by the Air Pollution Control Board. The plans are the mechanism each permittee will use to verify continuous compliance with its permit and the applicable rules and will form the basis for each permittee's Annual Compliance Certification. Each permittee's ability to verify continuous compliance with its air pollution control requirements is a central goal of the Title V and FESOP permit programs.

The regulatory authority for and the essential elements of a compliance monitoring plan were clarified in IDEM's Compliance Monitoring Guidance, in May 1996. IDEM originally placed all the preventive maintenance requirements in the permit section titled "Preventive Maintenance Plan." Under that section the permittee's Preventive Maintenance Plan (PMP) had to set out requirements for the inspection and maintenance of equipment both on a routine basis and in response to monitoring. Routine maintenance was a set schedule of inspections and maintenance of the equipment. The second was inspection and maintenance in response to monitoring that showed that the equipment was not operating in its normal range. This monitoring would indicate that maintenance was required to prevent the exceedance of an emission limit or other permit requirement. The maintenance plan was to set out the "corrective actions" that the permittee would take in the event an inspection indicated an "out of specification situation," and also set out the time frame for taking the corrective action. In addition, the PMP had to include a schedule for devising additional corrective actions for out of compliance situations that the source had not predicted in the PMP. All these plans, actions and schedules were part of the Preventive Maintenance Plan, with the purpose of maintaining the permittee's equipment so that an exceedance of an emission limit or violation of other permit requirements could be prevented.

After issuing the first draft Title V permits on public notice in July of 1997, IDEM received comments from members of the regulated community regarding many of the draft permit terms, including the PMP requirements. One suggestion was that the corrective action and related schedule requirements be removed from the PMP requirement and placed into some other requirement in the permit. This suggestion was based, in some part, on the desire that a permittee's maintenance staff handle the routine maintenance of the equipment, and a permittee's environmental compliance and engineering staff handle the compliance monitoring and steps taken in reaction to an indication that the facility required maintenance to prevent an environmental problem.

IDEM carefully considered this suggestion and agreed to separate the "corrective actions" and related schedule requirements from the PMP. These requirements were placed into a separate requirement, which IDEM named the Compliance Response Plan (CRP). In response to another comment, IDEM changed the name of the "corrective actions" to "response steps." That is how the present CRP requirements became separated from the PMP requirement, and acquired their distinctive nomenclature.

Other comments sought clarification on whether the failure to follow the PMP was violation of the permit. The concern was that a permittee's PMP might call for the permittee to have, for example, three "widget" replacement parts in inventory. If one widget was taken from inventory for use in maintenance, then the permittee might be in violation of the PMP, since there were no longer three widgets in inventory, as required by the PMP. Comments also expressed a view that if a maintenance employee was

unexpectedly delayed in making the inspection under the PMP's schedule, for example by the employee's sudden illness, another permit violation could occur, even though the equipment was still functioning properly.

IDEM considered the comments and revised the PMP requirement so that if the permittee fails to follow its PMP, a permit violation will occur only if the lack of proper maintenance causes or contributes to a violation of any limitation on emissions or potential to emit. This was also the second basis for separating the compliance maintenance response steps from the PMP and placing them in the Compliance Response Plan (CRP). Unlike the PMP, the permittee must conduct the required monitoring and take any response steps as set out in the CRP (unless otherwise excused) or a permit violation will occur.

The Compliance Monitoring Plan is made up of the PMP, the CRP, the compliance monitoring and compliance determination requirements in section D of the permit, and the record keeping and reporting requirements in sections C and D. IDEM decided to list all these requirements under this new name, the Compliance Monitoring Plan (CMP), to distinguish them from the PMP requirements. The section D provisions set out which facilities must comply with the CMP requirement. The authority for the CMP provisions is found at 326 IAC 2-7-5(1), 2-7-5(3), 2-7-5(13), 2-7-6(1), 1-6-3 and 1-6-5.

Most permittees already have a plan for conducting preventive maintenance for the emission units and control devices. It is simply a good business practice to have identified the specific personnel whose job duties include inspecting, maintaining and repairing the emission control devices. The emission unit equipment and the emission control equipment may be covered by a written recommendation from the manufacturer set out schedules for the regular inspection and maintenance of the equipment. The permittee will usually have adopted an inspection and maintenance schedule that works for its particular equipment and process in order to keep equipment downtime to a minimum and achieve environmental compliance. The manufacturer may also have indicated, or the permittee may know from experience, what replacement parts should be kept on hand. The permittee may already keep sufficient spare parts on hand so that if a replacement is needed, it can be quickly installed, without a delay in the permittee's business activities and without an environmental violation. For the most part, the PMP can be created by combining present business practices and equipment manufacturer guidance into one document, the Preventive Maintenance Plan (PMP).

The permittee must have the PMP ready for the start-up of the new units. IDEM is not going to draft the PMP. Permittees know their processes and equipment extremely well and are in the best position to draft the PMP. IDEM's air inspectors and permit staff will be available to assist the permittee with any questions about the PMP. IDEM may request a copy of the PMP to review and approve.

The CRP requirement of response steps and schedule requirements are another example of documenting procedures most permittees already have developed in the course of good business practices and the prevention of environmental problems. Equipment will often arrive with the manufacturer's trouble shooting guide. It will specify the steps to take when the equipment is not functioning correctly. The steps may involve some initial checking of the system to locate the exact cause, and other steps to place the system back into proper working order. Using the trouble shooting guide and the permittee's own experience with the equipment, the steps are taken in order and as scheduled until the problem is fixed.

A permittee will likely already have a procedure to follow when an unforeseen problem situation occurs. The procedure may list the staff to contact in order to select a course of action, or other step, before the equipment problem creates an environmental violation or interrupts the permittee's business process.

The Compliance Monitoring Plan (CMP) is consistent with IDEM's Compliance Monitoring Guidance released in May of 1996. The guidance discusses corrective action plans setting out the steps to take when compliance monitoring shows an out of range reading (Guidance, page 13). Some of the

terminology has changed, as a result of comments from regulated sources, but the requirements in the permit do not conflict with the guidance. There have been no changes to this permit as a result of this comment.

Comment 13

In Condition C.12 of the permit (General Recordkeeping Requirements) paragraph (c)(4) should be deleted from the permit, since the requirements for preventive maintenance plan are already adequately addressed in Condition C.2, while the requirements of paragraph C.12 go beyond the requirements of 326 IAC 1-6-3.

Response 13

The first sentence of condition C.12 sets out the records that must be kept to comply with Section C Compliance Monitoring Plan - Failure to Take Response Steps. The second sentence of (c)(4) is required by 326 IAC 2-7-5(3)(B). Specifically, (B)(ii) requires retention of records for all required monitoring data and support information, and support information includes calibration and maintenance records. It describes records that would be potentially useful for the source to use under Section C Compliance Monitoring Plan - Failure to Take Response Steps. Utilizing the emergency provisions is a permittee's prerogative. The permit need not require that the permittee be qualified to satisfy those provisions. The adequacy of the evidence that a permittee provides under the emergency provisions can be evaluated at that time. If a permittee cannot demonstrate that an event qualifies as an emergency then the affirmative defense cannot be claimed.

There have been no changes made to this condition as a result of this comment.

Comment 14

In Condition D.1.4 (D.1.5) of the permit (Testing requirements), we would request that the requirement to repeat the stack test every five years be deleted from this condition. IDEM has the authority to require testing when deemed necessary. We believe that the determination to require testing beyond the initial compliance test should be made on a case by case basis considering the results of the original test and other compliance indicators, rather than requiring a set schedule for repeat testing, before any need for which repeat testing has been demonstrated. Golden Casting believes that the numerous compliance conditions in the permit will be adequate to ensure continued compliance, once the stack test establishes that the equipment and control devices are being operated correctly.

Response 14

See the response to Comment 4.

Comment 15

In Conditions D.1.6 and D.1.7 (now D.1.7 and D.1.8) of the permit, (Visible Emission Notations and Parametric Monitoring), the allowable PM emissions from the proposed emission unit are much less than 10 pounds per hour, and it is our understanding that IDEM does not normally require compliance monitoring of such relatively small emission units. We also believe that the requirement to make visible emissions notations and to do parametric monitoring is duplicative. As such, we would request that the permit include the requirement to do daily visual observations only, and that Condition D.1.7 (now D.1.8) be deleted from the permit. If condition D.1.7 (now D.1.8) is retained in the permit we are also concerned that the monitoring range of 4.0 to 7.0 inches of water is not reflective of the actual anticipated operating range. The range should be amended to 3.0 to 8.0 inches of water if this condition is not removed. Lastly, since we believe that Condition C.9 should be deleted from the permit, we would also request that the reference to a Compliance Response Plan be deleted as well from these conditions.

Response 15

To show compliance with the PSD minor limit, Conditions D.1.2, and the allowable PM emission limit of

326 IAC 6-3-2, as Condition D.1.1, compliance monitoring of the baghouse is required. IDEM believes that the pressure drop across a baghouse, in addition to visible emissions, is a key parameter in determining the performance of the baghouse. No one parameter is enough to determine proper performance, unless a continuous opacity monitor (COM) or continuous emission rate monitor (CERM) is installed. IDEM is not requiring Golden Casting to install such devices, however, the pressure drop across the dust collectors must be monitored and recorded at least once daily to insure proper performance of the baghouses. For further explanation, see the response to Comment 6.

Comment 16

In Condition D.1.11 (now D.1.12) of the permit (Baghouse Inspections) we would request that this condition be eliminated, since the intent of each of these conditions is already covered by other conditions, which may in fact conflict with these conditions. Baghouse inspections should more appropriately be included under our Preventive Maintenance Plan, rather than be addressed as a specific permit condition. Again, if there is a specific applicable requirement for such inspections beyond the requirement for a Preventive Maintenance Plan, please let us know the reference for such a requirement.

Response 16

Condition D.1.11 (now D.1.12) is required to minimize excess emissions, to the extent feasible, caused by events such as a bag failure. There have been no changes to the permit as a result of this comment.

Comment 17

In Conditions D.1.9 (now D.1.10) of the permit (Broken or Failed Bag Detection), we would request that this condition be eliminated, since the intent of the condition is already covered by other requirements, which may in fact conflict with these conditions. This requirement does not appear to be based on a specific applicable regulatory requirement. Lastly, the condition references a Condition in Section B entitled "Emergency Provisions" which does not in fact exist.

Response 17

Torn or otherwise failed bags can have a dramatic effect on bag house performance and few sources have reliable information that demonstrates that compliance can be achieved when compartments are "on line" with torn bags.

Pursuant to 326 IAC 2-7-5(1)(F), each Part 70 permit is required to contain conditions which minimize excess emissions to the extent feasible, caused by events such as a bag failure. The requirements shall take into consideration available technologies, safety cost, and other relevant factors. The OAM does not consider shutting down the baghouse and associated production equipment to be infeasible in this case. Many sources which vent their baghouse exhaust in the buildings during winter months will shutdown production during such bag failures.

Language regarding 326 IAC 2-7-16, Emergency Provisions, has been added to the permit. This condition, which is referenced by Condition D.1.9, was inadvertently omitted from the draft permit. The Emergency Provision, which supersedes 326 IAC 1-6, is applicable to any source subject to this rule after the effective date of this rule (i.e., this source). This provision is in addition to any emergency or upset provision contained in any applicable requirement. The new condition, numbered as C.6, reads as follows, with the remaining conditions renumbered accordingly:

C.6 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.**
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense**

to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:

- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;**
- (2) The permitted facility was at the time being properly operated;**
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;**
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAM, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;**

Telephone Number: 1-800-451-6027 (ask for Office of Air Management, Compliance Section), or

Telephone Number: 317-233-5674 (ask for Compliance Section)

Facsimile Number: 317-233-5967

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted notice, either in writing or facsimile, of the emergency to:**

**Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015**

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;**
- (B) Any steps taken to mitigate the emissions; and**
- (C) Corrective actions taken.**

The notification which shall be submitted by the Permittee does not require the certification by the “responsible official” as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.**

- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.**
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.**
- (e) IDEM, OAM, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(10) be revised in response to an emergency.**
- (f) Failure to notify IDEM, OAM, by telephone or facsimile of an emergency lasting more than one (1) hour in compliance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.**
- (g) Operations may continue during an emergency only if the following conditions are met:**
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.**
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:**
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and**
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.**

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

Condition D.1.10, Broken or Failed Bag Detection, has also been modified to change the Section citation from Section B "General Construction Conditions" to Section C "General Operation Conditions." The changes to the permit are as follows:

In the event that bag failure has been observed:

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B C - Emergency Provisions).**

- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B C - Emergency Provisions).

Comment 18

In Condition D.1.10 (now D.1.11) of the permit (Recordkeeping Requirements), since we believe that the requirement for daily visible emission notations should be eliminated from the permit, we would also request that paragraph (a) of this condition be eliminated. The recordkeeping required for parametric monitoring includes records beyond those required to demonstrate compliance with the compliance monitoring conditions. Specifically the requirements to record cleaning cycle differential pressures, maintain records of QA/QC procedures, SOPs, manufacturer's specifications, and an equipment "troubleshooting" contingency plan, are duplicative and are not supported by any reference to a specific applicable regulation for such requirements. We would request that these requirements be eliminated from this condition. We believe that simply recording the differential pressure drop reading as required by condition D.1.7 (now D.1.8) is adequate to demonstrate proper ongoing operations of the baghouse.

Response 18

The requirements for visible emissions shall remain in the permit, as the baghouse must be in operation in order to remain in compliance with the PSD minor limitation and to ensure compliance with the allowable PM emission limit of 326 IAC 6-3-2 (Conditions D.1.2 and D.1.1, respectively). For further explanation please see the response to Comment 16.

The record keeping requirements in items (3) through (7) of Condition D.1.10 (now D.1.11) serve as records of preventive maintenance which may be used to demonstrate that failure to implement the Preventive Maintenance Plan for that facility did not cause or contribute to a violation of the limitation on potential to emit. The OAM feels that it is necessary for the Permittee to maintain records in accordance with condition D.2.14 and C.22 (General Record Keeping Requirements). There were no changes to the final permit from this comment.

Upon further review from the OAM, the OAM has decided to make the following changes to the Significant Source Modification to a Part 70 Operating Permit:

Comment 19

In Section D.1 of the permit, it is not clear how this permit describes a shot blast unit controlled by two baghouses, then in D.1.2 states that only one baghouse is required to operate. The test in D.1.4 requires testing on the baghouses (plural). This multiple baghouse set up need clarification.

Additionally, the pressure drop range in D.1.7 (now D.1.8) seems too restrictive.

Response 19

The new shot blast unit, identified as 450, using a baghouse (ID BH10) as particulate control, will replace the existing shot blast unit No. 445, that uses baghouses (ID BH5 and BH10) as particulate control. Because there is only one baghouse controlling the new shot blast unit, identified as 450, and the testing requirements in Condition D.1.4 (now D.1.5) have been revised to refer to only one baghouse. See the response to Comments 4 and 6.

Verbal comments were also received in a public hearing held on June 13, 2000 at the Columbus City Hall Meeting Room at 123 Washington Street in Columbus, Indiana. Hearing Officer Iryn Calilung, Mack Sims and Autumn Marker were in attendance on behalf of IDEM. A summary of the relevant comments

and corresponding responses follows:

Comment 20

Mr. Reed Oslan, a lawyer representing Arvin Industries made the following comments:

- (1) Arvin Industries has felt for many years that Golden Casting is violating the common law doctrines of nuisance and trespass as well as a variety of environmental laws, which has resulted in significant damage for Arvin Industries, its employees, and neighborhood residents. Therefore, any emissions increase that would result from this permit modification should be denied.
- (2) Golden Casting stated in a meeting with Arvin Industries that they will commit to the fact that the new modification will not result in any additional air emissions. Arvin Industries believes the permit should be modified to reflect this new agreement.
- (3) They believe the agency should be extremely cautious when issuing this permit because there has been a long history of significant emissions onto Arvin Industries's property. Also, because there can be many different interpretations of data and differences in opinion, IDEM should be cautious and conservative about the way in which they resolve those differences.

Response 20

- (1) As of April 4, 2000, the source has voluntarily provided IDEM with a fugitive dust plan that is enforceable and practical and is designed to reduce any fugitive dust. The plan has been submitted and the source is currently obligated to comply with it. This Significant Source Modification is limited to the proposed construction of the shot blaster. Concerns regarding other facilities will be considered when IDEM prepares the Title V permit for the entire source. The source must comply with the requirements of the significant source modification upon issuance of the modification.
- (2) Golden Casting has requested that the emission unit description be revised to limit the capacity of the new shot blast unit, identified as 450, to equal the daily maximum capacity of the two existing shotblasters, identified as 445 and the south Pangborn blast, being replaced in this modification. The existing daily capacity of the two existing shotblasters is $(11 \text{ tons per hour of castings} + 7.5 \text{ tons per hour of castings}) \times 24 \text{ hours/day} = 444 \text{ tons per day}$. The new shot blast unit, identified as 450, will also not exceed 444 tons per day of castings. The changes to the permit are as follows:
 - (a) One (1) shot blast unit, identified as 450, with a maximum capacity of 30 tons per hour of **steel shot castings, not to exceed 444 tons per day of castings**, using a baghouse (ID BH10) as particulate control, and exhausting to stack SC-22. This shot blast unit, identified as 450, shall replace the existing shot blast unit No. 445, with a maximum capacity of 11 tons per hour of **steel shot castings**, which utilizes baghouses BH5 and BH10 as particulate matter control. **This shot blast unit, identified as 450, shall also replace the South Pangborn Blast.**
- (3) Please see the response to Comment 1.

Comment 21

The next speaker at the hearing was Mr. Geoff Glanders of August Mack Environmental, a technical consultant to Arvin Industries. A summary of his comments is as follows:

- (1) August Mack Environmental has done extensive ambient air testing and monitoring of Golden Casting's emissions coming onto Arvin Industries's property and is concerned that those emissions are in violation of state rules and laws. August Mack Environmental believes that there is insufficient information in the record to determine whether or not a federal U.S. EPA permit is needed for this change and the information should therefore be made available to Arvin Industries. Golden Casting should do the analysis of their increases over the last several years to determine whether a federal permit is required.

- (2) The second issue is that Arvin Industries believes that the monitoring included with this modification is inadequate to determine violations of air quality regulations. Arvin Industries is concerned because the permit has very infrequent measures of compliance and because Golden Casting has requested that there be almost no monitoring of this particular operation to prove compliance. The proposed permit requires a compliance monitoring plan and a response plan which Arvin Industries agrees with. The permit also requires emissions testing of this unit every five years whereas Arvin Industries believes testing should be required every year. The proposed permit also requires visible monitoring once per shift and daily gauging of the equipment to be certain that it is functioning properly. However, Arvin Industries believes there should be a continuous monitor to record whether Golden Casting's emissions are in compliance with their permit.
- (3) The third issue is the baghouse. The proposed permit requires this equipment to be checked on a quarterly basis. Arvin Industries believes it should be done once a month. Arvin Industries asks that all record keeping and recording requirements be made available to the public. If Golden Casting commits to not increasing their emissions there should be effective, efficient and routine systems to monitor their performance.

Response 21

- (1) No other operations at the source will increase their throughput as a result of this modification, and no de-bottlenecking will occur. Since this source is located in an attainment area for PM and PM10 and the increase from the new shot blasting unit is not greater than the significance level, there is no need to do the past actual emissions minus the potential to emit for the new unit and not necessary to do the contemporaneous increases and decreases.

The table below summarizes the total potential to emit, reflecting all limits, of the shot blast unit, identified as 450.

Process/facility	Limited Potential to Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Shot Blast 450	11.17	1.12	0.00	0.00	0.00	0.00	0.00
Total Emissions	25	15	40	40	100	40	N/A

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

- (2) Please see the response to comments 5, 6 and 7.
- (3) Please see the response to comments 6.

Comment 22

The next speaker at the hearing was Mr. Elbert Held, a resident. A summary of his comments is as follows:

- (1) The residents are concerned because testing is only required to be done during the daytime and the residents feel there are more emissions at night.
- (2) Flat surfaces collect black dust that cannot be washed off.
- (3) The residents feel that they should either have a way to monitor the tests or be informed of the tests.

Response 22

- (1) Visible emission notations are the only monitoring steps done only during daylight because of the method used. Pressure drop readings are to be performed once per shift.
- (2) As of April 4, 2000, the source has voluntarily provided IDEM with a fugitive dust plan that is

enforceable and practical and is designed to reduce any fugitive dust. The plan has been submitted and the source is currently obligated to comply with it. This Significant Source Modification is limited to the proposed construction of the shot blaster. Concerns regarding other facilities will be considered when IDEM prepares the Title V permit for the entire source. The source must comply with the requirements of the significant source modification upon issuance of the modification.

- (3) Non-confidential records placed by IDEM into the OAM's source file can be requested for review by the public.

Comment 23

The next speaker at the hearing was Mr. Elbert Held. He wanted to know who is doing the inspections and will the emissions be controlled.

Response 23

The three compliance inspectors that have been out to Golden Casting are D.J. Knotts, Joe Foyst, and Richard Sekula. The fugitive dust plan was finalized in April of 2000 and Golden Casting has begun to implement it.

Different areas of the plan have different implementation dates. The plan was approved and the implementation schedule for the emission units is as follows:

- (1) The cupola charge system shall be controlled by August of 2000 by reducing the charge door opening, and installing conveyORIZED charged equipment.
 - (2) The west scrap pit area is to have a sprinkler system to operate daily, on an as needed basis, from April through October.
 - (3) The paved roads east of the building shall be swept as needed or coated with a chemical dust suppressant at least once per month from April through October.
 - (4) The west paved road west of the building shall be swept as needed throughout the year.
 - (5) The paved roads, parking lots south and east of the plant building shall be swept as needed monthly.
 - (6) Paved area around the dust collectors vacuumed and plastic bags or closed lugger tubs shall be used to enclose dust removed from baghouse on a daily basis.
 - (7) The waste sand pile east of the plant building controlled with sprinkler systems operated daily, on an as needed basis, from April through October.
 - (8) The sand conveyor on the roof shall be covered.
 - (9) The truck loading station on the east side of the building shall maintain plastic shrouds and all trucks shall be tarped.
 - (10) Unpaved roads and storage area east of main building shall be controlled at least once per month with a chemical dust suppressant from April through October.
 - (11) Raw material storage area on the west side of the building shall be swept daily, year-round.
- A vacuum sweeper, broom/suction sweeper, water sprinklers, and a dust suppression spray is used to maintain waste sand piles, road and material storage areas. OAM inspectors will go to the source to follow up. It is possible to obtain a copy of the final fugitive dust plan from IDEM.

Comment 24

The next speaker at the hearing was Ms. Sharon Green, a resident. She expressed concern over emissions, particularly nighttime emissions, because both she and her husband have encountered asthma conditions. She also wanted to know what short-term, midrange, or long-term deadlines exist for compliance with the emission control standards.

Response 24

The source must comply with the requirements of the significant source modification upon issuance of the modification. As discussed in the response to comment 23, the fugitive dust control plan is currently

being implemented. All emission units at Golden Casting are currently subject to emission control standards established by Indiana Air Pollution Control rules. Additional compliance monitoring and recordkeeping requirements will be established by the OAM in Golden Casting's plant wide title V operation permit. The OAM expects to have a draft Title V operating permit available for public review before the end of 2000.

Comment 25

The next speaker at the hearing was Ms. Bonnie Brown, an Arvin Industries employee. A summary of her comments is as follows:

- (1) Smoke is not always a good indication of emissions, especially when the humidity is really bad and it is raining.
- (2) A couple of years ago she went to Golden Casting with a concern that her vehicle was being ruined because of the metal particulates that are going down into the clear coat.
- (3) She has been told by two doctors that the emissions from the foundry have ruined her sinuses and many other employees have developed medical problems such as bronchitis and sinus infections.
- (4) She asks what is Golden Casting currently doing to correct the situation before IDEM allows any more emissions and whether they say they're going to or not, will IDEM allow something else [air pollutants] to be put into the air?
- (5) She asks what is IDEM doing to monitor this situation and has there been any review of the test results that Arvin Industries and the foundry have done?
- (6) Ms. Brown wanted to know about a time frame for compliance with the dust control plan.
- (7) She asked whether anyone from IDEM has ever been to the foundry.
- (8) Ms. Brown also wanted to know if the source is compliant with every single standard that is set up or just with one.

Response 25

- (1) In addition to visible emission notations, other compliance monitoring will be required to supplement the visible emission notations, including pressure drop readings and baghouse inspections. This significant source modification will replace shot blast unit 450 and the south Pangborn blast with a new shotblaster and baghouse BH-10 will be refurbished. The source must comply with the requirements of the significant source modification and all applicable state regulations upon issuance of the modification.
- (2,3) The source must comply with the requirements of the significant source modification upon issuance of the permit. As discussed in the response to comment 23, this includes compliance with the recently implemented fugitive dust control plan. Emission units permitted under this modification are subject to emission control standards established by Indiana Air Pollution Control rules. Further, additional compliance monitoring and recordkeeping requirements will be established by the OAM in Golden Casting's plant wide Title V operating permit. The OAM expects to have a draft Title V operating permit available for public review before the end of calendar year 2000.
- (4, 5, 6) As of April 4, 2000, the source has voluntarily provided IDEM with a fugitive dust plan that is enforceable and practical that is designed to reduce potential emissions of fugitive dust. The plan has been reviewed by the OAM and the source is currently obligated to comply with it. This Significant Source Modification is limited to the proposed construction of the shot blaster. Concerns regarding other facilities will be considered when IDEM prepares the Title V permit for the entire source. The source must comply with the requirements of the significant source modification upon issuance of the modification.
- (7) Between December 18, 1998 and May 5, 2000, IDEM inspectors have conducted 27 surveillance and field inspections of Golden Casting. The inspections are unannounced spot inspections at various times during the day.
- (8) Golden Casting is required to comply with all applicable state regulations.

Comment 26

The next speaker at the hearing was Ms. Marcia Prior, a resident. She expressed concern over the black dust from the plant is all over her house, walls and curtains.

Response 26

As of April 4, 2000, the source has voluntarily provided IDEM with a fugitive dust plan that is enforceable and practical and is designed to reduce any fugitive dust. The plan has been submitted and the source is currently obligated to comply with it. This Significant Source Modification is limited to the proposed construction of the shot blaster. Concerns regarding other facilities will be considered when IDEM prepares the Title V permit for the entire source. The source must comply with the requirements of the significant source modification upon issuance of the modification.

This significant source modification will replace shot blast unit 450 and the south Pangborn blast with a new shotblaster and baghouse BH-10 will be refurbished.

Comment 27

The next speaker at the hearing was Mr. Thomas Rarick of Keramida Environmental, who assisted in preparing the permit applications for Golden Casting. A summary of his comments is as follows:

- (1) Golden Casting is in compliance with all of its permit emission limitations and fugitive dust control plan. The purpose of putting in a new shot blast unit is to provide better control for this particular process. The units being replaced have a combined allowable emission rate of about 36 pounds per hour of particulate matter while the new unit will have an allowable rate of about five and a half pounds per hour of particulate matter.
- (2) Even though performance testing is not required under the current permit, the source will be performance testing. Also, the current permit doesn't require compliance monitoring, yet the source does perform compliance monitoring. The source is not opposed to compliance monitoring, but the source believes it should be done in the most effective manner and that they should look at things that should be regulated.
- (3) This new project is part of preventive maintenance. The source believes things such as quarterly baghouse inspections should be included in preventive maintenance plans which have already been implemented.
- (4) The fugitive dust plan was developed as a voluntary measure and is being implemented fully right now.
- (5) Emission units in the various processes at Golden Casting are hooked to control devices and there are no vents that allow nighttime emissions that are not vented through the baghouse. It is physically impossible for emission control systems to be bypassed to allow increased emissions at night.

Response 27

No response is necessary.

Comment 28

Mr. Reed Oslan asked what future emissions would be expected after the modification.

Response 28

Mr. Rarick replied that the allowable emissions for the new unit will be five and a half pounds per hour for particulate and a little more than three pounds per hour for PM10. However, he believes that during the performance testing, the source will meet and exceed that limit but he is unable to give specific numbers.

It should also be noted that the emissions from this modification must be less than 25 and 15 tons per year for PM and PM10 or else the source would be subject to a PSD permit.

Comment 29

The next speaker at the hearing was Mr. Thomas Smith, the president of Golden Casting Corporation. A summary of his comments is as follows:

- (1) Not only is the source in compliance, this project will decrease emissions, not increase them. They are replacing two 30-year-old units with a new unit, new technologies and capabilities that are available today.
- (2) The additional measures requested by Arvin Industries in terms of additional monitoring are simply not necessary. No other industry, company, or foundry is subjected to such measures, including Arvin Industries themselves.
- (3) Their work with IDEM on a fugitive dust plan and their constant compliance during daily visits and inspections by IDEM are evidence of their right to fair and equitable treatment. They are asking IDEM to consider the facts and continue to be fair and objective.

Response 29

No response is necessary.

Comment 30

The next speaker at the hearing was Ms. Carol Williams, a Registered Nurse and occupational health nurse at Arvin Industries. She asked how was IDEM checking on compliance.

Response 30

Golden Casting should be in compliance with the fugitive dust plan that the source has provided. If an inspector found out that the source is not in compliance, the OAM will speak to Golden Casting and find out why and what, if any, corrective actions have been taken. If IDEM finds that there really is a violation, Golden Casting will be referred to enforcement.

The new equipment will have its own set of requirements to show compliance, such as: visible emissions, pressure drop readings, baghouse inspections and broken/failed bag detections. If the source doesn't comply, they will describe any corrective actions taken and if there is a violation they will be referred to enforcement. Opacity reading reports are normally required to be submitted quarterly. However, deviations of the types described by the emergency provisions of condition C.6 must be submitted to the air compliance inspector within four (4) working hours. Other deviations must be reported within ten (10) days.

The source must maintain records of their reports for a period of five years and that the reports must be available to any inspector that comes to the plant.

Comment 31

Mr. Glanders asked if Golden Casting has ever notified IDEM of a violation or a malfunction.

Response 31

The source has notified IDEM of a violation or a malfunction and as a result there were follow up inspections performed by IDEM.

Comment 32

Mr. Chuck Staehler asked what the capacities of the old and new units are.

Response 32

The allowable emissions for the two existing shotblasters, identified as 445 and the south Pangborn blast, being replaced in this modification under 326 IAC 6-3-2 were 20.4 pounds per hour and 12.6 pounds per hour (25.2 pounds / 2 units of equal capacity = 12.6 pounds per hour, as only one of the two shotblasters from the North and South Pangborn Blast are being replaced). The total allowable hourly

emissions before the modification were 33 pounds of particulate matter per hour (20.4 pounds + 12.6 pounds = 33 pounds). However, this modification has a PSD minor limit and particulate matter emissions shall not exceed 5.48 pounds per hour. The allowable emissions have been reduced from 33 pounds per hour to 5.48 pounds per hour of particulate matter.

The two (2) old shotblaster units were 11 tons per hour and 7.5 tons per hour and the new shotblaster is rated at 30 tons per hour. However, Golden Casting has requested that the emission unit description be revised to limit the new shot blast unit, identified as 450, daily maximum capacity to equal that of the two existing shotblasters, identified as 445 and the south Pangborn blast, being replaced in this modification. The existing daily capacity of the two existing shotblasters is (11 tons per hour of castings + 7.5 tons per hour of castings) x 24 hours/day = 444 tons per day. The new shot blast unit, identified as 450, will also not exceed 444 tons per day of castings. The baghouse will also be upgraded from 95 to 99.5 percent efficiency. The changes to the permit are as follows (additions indicated in **boldface**, deletions indicated by ~~strikeout~~ for emphasis):

- (a) One (1) shot blast unit, identified as 450, with a maximum capacity of 30 tons per hour of ~~steel shot castings~~, **not to exceed 444 tons per day of castings**, using a baghouse (ID BH10) as particulate control, and exhausting to stack SC-22. This shot blast unit, identified as 450, shall replace the existing shot blast unit No. 445, with a maximum capacity of 11 tons per hour of ~~steel shot castings~~, which utilizes baghouses BH5 and BH10 as particulate matter control. **This shot blast unit, identified as 450, shall also replace the South Pangborn Blast.**

Condition D.1.3 has been added to the permit to require operation limitations on the amount of castings that the new shot blast unit identified as 450 can process, and to also ensure that the new shot blast unit will not be operated if the two (2) existing shot blast units identified as 445 and south Pangborn blast are in operation. The remaining conditions have been renumbered, and the new condition reads as follows:

D.1.3 Operation Limitations

- (a) **When the shot blast unit identified as 450 is fully operational, the two (2) existing shot blast units identified as 445 and the south Pangborn blast shall be removed from service. Prior to becoming fully operational, the shot blast unit identified as 450 shall not be operated if the two (2) existing shot blast units identified as 445 and the south Pangborn blast are in operation.**
- (b) **The shot blast unit identified as 450 shall limit total daily casting throughput to 444 tons per day (equivalent to 162,060 tons per year).**

Condition D.1.10 (now D.1.11) has been revised to require record keeping of the amount of castings processed by the new shot blast unit, identified as 450.

- (c) **To document compliance with Condition D.1.3, the Permittee shall maintain records of maximum daily casting throughput for each day for the shot blast unit identified at 450. Records maintained shall be taken daily and shall be complete and sufficient to establish compliance with the casting throughput limit established in Condition D.1.3.**

Condition D.1.12 has been added to the permit to require reporting of the maximum amount of casting processed by the shot blast unit, identified as 450. The new condition reads as follows:

D.1.12 Reporting Requirements

A quarterly summary of the information to document casting throughput for the shot blast unit identified at 450. This shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of

this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

A Source Modification Quarterly Report has been added to the end of the permit to require reporting of the amount of castings processed by the one shot blast unit identified as 450.

Comment 33

The next speaker at the hearing was Mr. Boris Ladwig, a reporter with The Republic, a Columbus, Indiana newspaper. A summary of his comments are as follows:

- (1) Has IDEM ever done any air quality monitoring around the foundry?
- (2) If PM10 monitoring starting at the end of the month, how can IDEM tell people that the foundry is in compliance if Golden Casting hasn't done any monitoring?
- (3) If IDEM doesn't know whether the foundry is currently in compliance, how can the source make modifications to the permit that can potentially increase the emissions?
- (4) What does the recordkeeping show?
- (5) Why doesn't IDEM test if they have complaints from residents?
- (6) What are the potential emissions for the new units after the baghouse has been upgraded?

Response 33

- (1) Air quality monitoring at Golden Casting was conducted in April of 1991 through October of 1993 for total suspended particulates and metals. No violations were recorded at the monitoring station.
Ambient PM-10 monitoring has been scheduled for the source and will start up in the near future.
- (2) There are other ways to show compliance, such as visible emission notations, parametric monitoring, baghouse inspections, recordkeeping and reporting.
- (3) Air quality monitoring is not required for a PSD minor source modification permit. For compliance, the applicable state rules that effect Golden Casting would be 326 IAC 6-3, which is a particulate matter rule, and also the fugitive dust rule. Compliance with these state rules is shown by recordkeeping and reporting.
- (4) The source provides an annual statement of what their emissions are. Golden Casting has several different permits that each address different pieces of equipment and specify what recordkeeping needs to be done. These reports are sent to IDEM and are reviewed by their compliance staff in addition to annual visits made by the compliance staff.
- (5) Ambient PM-10 Testing shall commence in the near future as a result of public comments and concerns.
- (6) The potential emissions for the new shotblaster are 11.17 tons per year of particulate matter and 1.12 tons per year of PM10 after controls.

Comment 34

Mr. Glanders stated that Arvin Industries's monitoring did show a violation of the PM10 national ambient air quality standard, a violation of the PSD and a violation of the fugitive dust rule.

Response 34

IDEM is currently evaluating the source's compliance status and files. Any violation of the PM10 national ambient air quality standard, violation of the PSD or violation of the fugitive dust rule will be handled accordingly.

Comment 35

Mr. Oslan commented that the fundamental premise of Arvin Industries's position was that they would object very strenuously to any increase in emissions over the actual emissions that were emitted by Golden Casting during the last year. Under the permit that is being proposed, the source would be able

to increase their emissions from last year by a factor of about 200. Unless there is an agreed condition that is an enforceable permit condition that Golden Casting will not increase their emissions above what the source had emitted last year, then Arvin Industries will continue to object to the permit and will do whatever they have to do to continue making their case.

Response 35

The allowable emissions for the two existing shotblasters, identified as 445 and the south Pangborn blast, being replaced in this modification under 326 IAC 6-3-2 were 20.4 pounds per hour and 12.6 pounds per hour (25.2 pounds / 2 units of equal capacity = 12.6 pounds per hour, as only one of the two shotblasters from the North and South Pangborn Blast are being replaced). The total allowable hourly emissions before the modification were 33 pounds of particulate matter per hour (20.4 pounds + 12.6 pounds = 33 pounds). However, this modification has a PSD minor limit and particulate matter emissions shall not exceed 5.48 pounds per hour. The allowable emissions have been reduced from 33 pounds per hour to 5.48 pounds per hour of particulate matter.

The two (2) old shotblaster units were 11 tons per hour and 7.5 tons per hour and the new shotblaster is rated at 30 tons per hour. However, Golden Casting has requested that the emission unit description be revised to limit the new shot blast unit, identified as 450, daily maximum capacity to equal that of the two existing shotblasters, identified as 445 and the south Pangborn blast, being replaced in this modification. The existing daily capacity of the two existing shotblasters is (11 tons per hour of castings + 7.5 tons per hour of castings) x 24 hours/day = 444 tons per day. The new shot blast unit, identified as 450, will also not exceed 444 tons per day of castings. The baghouse will also be upgraded from 95 to 99.5 percent efficiency. The changes to the permit are as follows (additions indicated in **boldface**, deletions indicated by ~~strikeout~~ for emphasis):

- (a) One (1) shot blast unit, identified as 450, with a maximum capacity of 30 tons per hour of **steel-shot castings, not to exceed 444 tons per day of castings**, using a baghouse (ID BH10) as particulate control, and exhausting to stack SC-22. This shot blast unit, identified as 450, shall replace the existing shot blast unit No. 445, with a maximum capacity of 11 tons per hour of ~~steel-shot castings~~, which utilizes baghouses BH5 and BH10 as particulate matter control. **This shot blast unit, identified as 450, shall also replace the South Pangborn Blast.**

On June 14, 2000, John Brown, member of the Columbus City Council, submitted written comments on the proposed Part 70 Significant Source Modification. A summary of the comments and corresponding responses is as follows:

Comment 36

I ask that the commission require Golden Casting Corporation to modify their permit to clearly state that Golden Casting would not increase emissions with this modification. At the public hearing on June 13, 2000, the President and CEO of Golden Casting Corporation stated, and it was reported by our local newspaper, the Republic, that Golden Casting would "not be increasing emissions."

So that there is no misunderstanding in what he said (does this mean no increase of the actual amount produced or does this mean that there will be no increase in the total amount allowed under the permit?), the commission should require Golden Casting to specifically note this in the permit.

Response 36

The allowable emissions for the two existing shotblasters, identified as 445 and the south Pangborn blast, being replaced in this modification under 326 IAC 6-3-2 were 20.4 pounds per hour and 12.6 pounds per hour (25.2 pounds / 2 units of equal capacity = 12.6 pounds per hour, as only one of the two shotblasters from the North and South Pangborn Blast are being replaced). The total allowable hourly emissions before the modification were 33 pounds of particulate matter per hour (20.4 pounds + 12.6 pounds = 33 pounds). However, this modification has a PSD minor limit and particulate matter

emissions shall not exceed 5.48 pounds per hour. The allowable emissions have been reduced from 33 pounds per hour to 5.48 pounds per hour of particulate matter.

Golden Casting has requested that the emission unit description be revised to limit the new shot blast unit, identified as 450, daily maximum capacity to equal that of the two existing shotblasters, identified as 450 and the south Pangborn blast, being replaced in this modification. The existing daily capacity of the two existing shotblasters is (11 tons per hour of castings + 7.5 tons per hour of castings) x 24 hours/day = 444 tons per day. The new shot blast unit, identified as 450, will also not exceed 444 tons per day of castings. The changes to the permit are as follows (additions indicated in **boldface**, deletions indicated by ~~strikeout~~ for emphasis):

- (a) One (1) shot blast unit, identified as 450, with a maximum capacity of 30 tons per hour of ~~steel shot~~ **castings, not to exceed 444 tons per day of castings**, using a baghouse (ID BH10) as particulate control, and exhausting to stack SC-22. This shot blast unit, identified as 450, shall replace the existing shot blast unit No. 445, with a maximum capacity of 11 tons per hour of ~~steel shot~~ **castings**, which utilizes baghouses BH5 and BH10 as particulate matter control. **This shot blast unit, identified as 450, shall also replace the South Pangborn Blast.**

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a Significant Source Modification to a Part 70 Operating Permit

Source Background and Description

Source Name:	Golden Casting Corp.
Source Location:	1616 Tenth St., Columbus, IN 47201
County:	Bartholomew
SIC Code:	3321
Operation Permit No.:	T 005-6001-00006
Operation Permit Application Date:	May 31, 1996
Source Modification No.:	SSM 005-11795-00006
Permit Reviewer:	Phillip Ritz/EVP

The Office of Air Management (OAM) has reviewed a modification application from Golden Casting Corp. relating to the replacement of the existing shot blast unit No. 445, utilizing baghouses BH5 and BH10 as particulate control, with a new blast unit No. 450, utilizing baghouse BH10 as particulate control.

History

On January 24, 2000, Golden Casting Corp. submitted an application to the OAM requesting to replace existing shot blast operations and existing baghouses at their existing plant. Golden Casting Corp. applied for a Part 70 permit on May 31, 1996.

New Emission Units and Pollution Control Equipment

The modification consists of the following permitted emission units and pollution control devices:

- (a) Shotblasting operations consisting of the following:
 - (1) One (1) shot blast unit, identified as 450, with a maximum capacity of 30 tons per hour of steel shot, using a baghouse (ID BH10) as particulate control, and exhausting to stack SC-22. This shot blast unit, identified as 450, shall replace the existing shot blast unit No. 445, with a maximum capacity of 11 tons per hour of steel shot, which utilizes baghouses BH5 and BH10 as particulate control.

Existing Approvals

The source applied for a Part 70 Operating Permit on May 31, 1996. The source has been operating under previous approvals including, but not limited to, the following:

- (a) 03-06-87-0119, issued June 30, 1983;
- (b) 03-06-87-0120, issued June 30, 1983;

- (c) 03-06-87-0121, issued June 30, 1983;
- (d) 03-06-87-0122, issued June 30, 1983;
- (e) Registration, issued May 1, 1986;
- (f) CP005-3370-00006, issued June 28, 1994; and
- (g) CP005-7081-00006, issued March 12, 1997.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
SC-22	Shot Blast	30	1.5	30,000	80

Recommendation

The staff recommends to the Commissioner that the Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on January 24, 2000.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, 1 page)

Potential To Emit of the Modification

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

Pollutant	Potential To Emit (tons/year)
PM	2,233.80
PM-10	223.38
SO ₂	0.00
VOC	0.00
CO	0.00
NO _x	0.00

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

- (a) This potential to emit is based on the one (1) shot blast unit, identified as 450, operating at a maximum capacity of 30 tons per hour of steel shot.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM and PM10 are equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the

provisions of 326 IAC 2-7-10.5(f)(4)(A), which will provide approval to construct and operate the modification.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

Pollutant	Potential To Emit (tons/year)
PM	greater than 100
PM-10	greater than 100
SO ₂	greater than 100
VOC	greater than 100
CO	greater than 100
NO _x	less than 100

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Naphthalene	less than 10
Formaldehyde	less than 10
TEA	greater than 10
TOTAL	greater than 25

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of PM, PM10, SO₂, VOC, and CO are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (c) This existing source is a major stationary source because it is one of the 28 listed source categories (secondary metal production) and at least one attainment regulated pollutant is emitted at a rate of 100 tons per year.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 1997 OAM emission data.

Pollutant	Actual Emissions (tons/year)
PM	19.527
PM-10	86.411
SO ₂	33.565
VOC	214.565
CO	5,299.968
NO _x	3.989

Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Shot Blast 450	11.17	1.12	0.00	0.00	0.00	0.00	0.00
Total Emissions	25	15	40	40	100	40	N/A

This modification to an existing major stationary source is not major because the emissions increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

County Attainment Status

The source is located in Bartholomew County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Bartholomew County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

The one (1) shot blast unit, identified as 450, is not subject to 326 IAC 2-2 (Prevention of Significant Deterioration), however, this existing source is a major stationary source because it is one of the 28 listed source categories (secondary metal production) and at least one attainment regulated pollutant is emitted at a rate of 100 tons per year. Therefore, any modification to this source which has the potential to emit of any of the criteria pollutants greater than the major modification thresholds, would be subject to the requirements of 326 IAC 2-2. The one (1) shot blast unit, identified as 450, does not trigger PSD applicability. The PM and PM-10 emissions from this facility are equal to 11.17 and 1.12 tons per year, respectively, after controls, which is less than PSD thresholds for PM and PM-10.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than one hundred (100) tons per year of PM. Pursuant to this rule, the owner/operator of

the source must annually submit an emission statement for the source. The annual statement must be received by July 1 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the shot blast unit, identified as 450 shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

$$40.04 = 55.0 (30)^{0.67} \quad \text{where } E = 39.96 \\ P = 30$$

The baghouse shall be in operation at all times the shot blast unit identified as emission unit 450 is in operation, in order to comply with this limit.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

- (1) The shot blast unit, identified as emission unit 450, has applicable compliance monitoring conditions as specified below:
 - (a) Daily visible emission notations of the shot blast unit, identified as emission unit 450, stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
 - (b) The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the shot blast unit, identified as emission unit 450, at least once weekly when the shot blast unit, identified as emission unit 450, is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 4.0 and 7.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.
 - (c) An inspection shall be performed each calendar quarter of all bags controlling the shotblasting operation when venting to the atmosphere. A baghouse inspection shall be performed within three months of redirecting vents to the atmosphere and every three months thereafter. Inspections are optional when venting to the indoors. All defective bags shall be replaced.
 - (d) In the event that bag failure has been observed the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

These monitoring conditions are necessary because the baghouse for the shot blast unit identified as emission unit 450 must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-7 (Part 70).

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Part 70 Application Form GSD-

None of the listed air toxics will be emitted from this modification.

Conclusion

The operation of this modification to a gray iron foundry manufacturing metal castings shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. SSM 005-11795-00006.

Appendix A: Emission Calculations

Company Name: Golden Casting Corporation
Plant Location: 1616 Tenth Street, Columbus, Indiana 47201
County: Bartholomew County
Permit Reviewer: Phillip Ritz/EVP
MSM#: T005-11795-00006
Plt. ID #: 005-00006

Potential Emissions

* * Process Emissions * *

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac #1 (ton/yr)		Type of control	Control Efficiency (%)
Castings Cleaning and Finishing Shot blasting SCC# 3-04-003-40 AP-42 Ch. 12.10	30.000	PM	17.00	2233.80	11.17	11.17	baghouse	99.5%
		PM-10	1.70	223.38	1.12	1.12	baghouse	99.5%
		SO2	0.00	0.00	0.00	0.00		
		NOx	0.00	0.00	0.00	0.00		
		VOC	0.00	0.00	0.00	0.00		

Allowable Emissions:

The following calculations determine PM compliance with 326 IAC 6-3-2 for process weight rates less than 30 tons per hour:

$$\text{limit} = 4.1 \times (30^{0.67}) = 40.04 \text{ lb/hr (allowable)}$$

with potential:

11.2 tons/yr x 2000 lb/ton / 8760 hr/yr = 2.5 lb/hr (will comply)

Above calculated for the new Plant 1 Blast machine (450), which will replace the existing Plant 1 Blast Machine (445).

Process:	Rate (tons iron/hr)	Pollutant	Ef (lb/ton produced)	Ebc (ton/yr)	Eac #1 (ton/yr)	Eac #2 (ton/yr)	Type of control	Control Efficiency (%)
Castings Cleaning and Finishing Shot blasting SCC# 3-04-003-40 AP-42 Ch. 12.10	11.000	PM	17.00	819.06	4.10	0.02	baghouse	99.5%
		PM-10	1.70	81.91	0.41	0.00	baghouse	99.5%
		SO2	0.00	0.00	0.00	0.00		
		NOx	0.00	0.00	0.00	0.00		
		VOC	0.00	0.00	0.00	0.00		

Above calculated for existing Plant 1 Blast machine (445), being replaced by Plant 1 blast machine (450).

	New Plant 1 Blast Machine (450) PTE	Blast Machine Actual	Potential to Emit of Modification	Major Source Threshold (tpy)
Uncontrolled PM (tpy)	2233.80	0.00	2233.80	--
(tpy)	223.38	0.02	223.36	15

Potential to Emit of Modification = New Plant 1 Blast Machine PTE - Existing Plant 1 Blast Machine PTE